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<b>TRANSMITTAL FORM</b>  <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/702,422
	Filing Date	November 5, 2003
	First Named Inventor	Engler et al.
	Art Unit	1618
	Examiner Name	James William Rogers
	Attorney Docket Number	A01498
Total Number of Pages in This Submission		

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks _____		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Rohm and Haas Company		
Signature	<i>Kenneth Crimaldi</i>		
Printed name	Kenneth Crimaldi		
Date	8/27/07	Reg. No.	40,968

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:			
Signature	<i>Janice Soulas</i>		
Typed or printed name	Janice Soulas	Date	8-28-07

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GROUP ART UNIT: 1618  
APPEAL NO. \_\_\_\_\_

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES**

**APPEAL BRIEF**

In re the Application of Ernst Engler et al.

Filed: November 5, 2003

Serial No. 10/702,422

For: AQUEOUS DISPERSION OF LOW-MELTING ORGANIC SOLIDS

Kenneth Crimaldi  
*Attorney for Appellants*

James William Rogers  
*Examiner*

Enclosed:  
Transmittal Form

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PTO/SB/17 (05-07)

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# **FEE TRANSMITTAL** **For FY 2007**

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

## **Complete if Known**

Application Number 10/702,422  
Filing Date November 5, 2003  
First Named Inventor Engler et al.  
Examiner Name James William Rogers  
Art Unit 1618  
Attorney Docket No. A01498

## **METHOD OF PAYMENT (check all that apply)**

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):  
☒ Deposit Account Deposit Account Number: 18-1850 Deposit Account Name: Rohm and Haas Company  
For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)  
☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee  
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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## **FEE CALCULATION**

### **1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

### **2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
- 20 or HP =	x	=
HP = highest number of total claims paid for, if greater than 20.		
<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
- 3 or HP =	x	=
HP = highest number of independent claims paid for, if greater than 3.		

### **3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets Extra Sheets Number of each additional 50 or fraction thereof Fee (\$)

- 100 = / 50 = (round up to a whole number) x =

### **4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief

Fees Paid (\$)

500.00

## **SUBMITTED BY**

Signature *Kenneth Crimaldi* Registration No. (Attorney/Agent) 40,968 Telephone 215-592-3000  
Name (Print/Type) Kenneth Crimaldi Date 8/27/07

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Ernst Engler et al.

Application No.: 10/702,422

Group No.: 1618

Filed: November 5, 2003

Examiner: James William Rogers

For: AQUEOUS DISPERSION OF LOW-MELTING ORGANIC SOLIDS

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**APPEAL BRIEF**

This is an appeal from the rejection dated May 11, 2007 finally rejecting claims 1, 3-8 and 10. The rejected claims are set out in Appendix J. Appellants filed a Notice of Appeal pursuant to 37 C.F.R. § 1.191 on July 30, 2007.

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(C) Real Party In Interest

The owner of the present application and the invention contained therein is  
ROHM AND HAAS COMPANY.

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**(D) Related Appeals, Interferences or Judicial Proceedings**

No appeals, interferences or judicial proceedings are known to Appellants, the Appellants' legal representative, or the assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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(E) Status Of Claims

The status of the claims is as follows:

Claims pending: 1, 3-8 and 10

Allowed claims: none

Claims objected to: none

Claims canceled: 2 and 9

Claims rejected: 1, 3-8 and 10

Claims on appeal: 1, 3-8 and 10

Claims withdrawn from consideration by the Examiner: none.



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**(F) Status Of Amendments**

Appellants have not filed an amendment after final rejection in the present application.

**(G) Summary of Claimed Subject Matter**

**Claim 1:** The present invention provides an aqueous composition [page 1, line 31] comprising from 15 [page 3, line 2] to 30% [page 1, line 32] of 4,5-dichloro-2-octyl-3(2H)-isothiazolone [page 2, lines 29-30], at least one inorganic filler [page 2, lines 1-2], at least one surfactant [page 2, line 2] and no more than 5% organic solvent [page 3, line 8]; said composition being stable with regard to agglomeration and phase separation for at least three months at room temperature [page 2, lines 3-4].

**Claim 6:** The present invention further provides a method for producing an aqueous dispersion [page 2, lines 5-6] comprising from 15 [page 3, line 2] to 30% [page 2, line 6] of 4,5-dichloro-2-octyl-3(2H)-isothiazolone [page 2, lines 29-30], at least one inorganic filler [page 2, line 8], at least one surfactant [page 2, line 8] and no more than 5% organic solvent [page 3, line 8]; said composition being stable with regard to agglomeration and phase separation for at least three months at room temperature [page 2, lines 9-10]; said method comprising combining in water said organic compound, the inorganic filler and the surfactant, at a temperature from 0°C to 35°C with agitation to provide a substantially uniform dispersion [page 2, lines 10-13].

**(H) Grounds of Rejection to be Reviewed on Appeal**

Claims 1 and 3-8 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. 4,906,274 ("Mattox '274") in view of E.P. 490,565 ("Mattox '565") in view of WO 95/00019 ("Payne").

Claims 1, 3-8 and 10 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Mattox '274 in view of Mattox '565 in view of Payne, in view of E.P. 1,060,667 ("Kostansek"), in view of U.S. 5,332,430 ("Gerigk").

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**(I) Argument**

(a) Regarding whether or not claims 1 and 3-8 are unpatentable over U.S. 4,906,274 ("Mattox '274") in view of E.P. 490,565 ("Mattox '565") in view of WO 95/00019 ("Payne"):

The final Office Action asserts that the amount of ingredients disclosed in the prior art "meets applicants claimed weight percents for those ingredients," i.e., the ranges overlap. "However, if the reference's disclosed range is so broad as to encompass a very large number of possible distinct compositions, this might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus." M.P.E.P. § 2144.05(I); *see also In re Peterson*, 315 F.3d 1325 (Fed. Cir. 2003). In this case, '274 discloses 0.1-99.9% of 3-isothiazolones and 0-99.8% of an organic solvent, ranges so broad that they do not teach or suggest anything in particular. The '565 reference is not much better, disclosing 0.01-50 parts isothiazolone, 0.0001-10 parts copper compound and optionally 40-99.9899 parts organic solvent. '565 discloses also that 0.01-30% of the organic composition may be used in an aqueous composition. A large variety of compositions can be derived from these parameters. Thus, the references disclose a genus in which the isothiazolone and solvent concentrations are very broadly defined. This is in contrast to the present claims, which disclose a species comprising a specific combination of concentrations and ingredients which has been shown to produce a stable aqueous dispersion. Claims 1 and 6 recite compositions having from 15-30% 4,5-dichloro-2-octyl-3(2H)-isothiazolone ("DCOIT") and no more than 5% organic solvent. Claims 3 and 7 further limit the amount of DCOIT to 18-25%, and claims 4 and 8 limit the inorganic filler to "titanium dioxide and kaolin in a total amount from 6% to 10%," and further limit the amount of organic solvent to no more than 2%. There is no disclosure in the prior art which suggests these combinations of features.

"The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness." M.P.E.P. § 2144.08(II); *see also In re Baird*, 16 F.3d 380 (Fed. Cir. 1994). The Office is required to "find some motivation or suggestion to make the claimed invention in light of the prior

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art teachings.” M.P.E.P. § 2144.08(II)(A). The references disclose broad percentage ranges, but do nothing to suggest the particular combination claimed by Appellants. Appellants respectfully submit that the Office has not established a prima facie case because there is nothing in the references which suggests Appellants’ claimed parameters or even suggests that one could prepare the claimed stabilized aqueous dispersion. One factor in assessing motivation to select a claimed species or subgenus from a prior art genus is “the size of the prior art genus.” M.P.E.P. § 2144.08(II)(A)(4)(a); *see also In re Baird*, 16 F.3d 380 (Fed. Cir. 1994). One skilled in the art would need to choose from among the very large number of possible combinations in the references to produce the present claims. Therefore, Appellants respectfully submit that the rejections should be withdrawn.

The Advisory Action mailed July 25, 2007 asserts that “since the ranges are percents ranging from essentially 0 to 100 the examiner does not consider the ranges described within ‘274 or the other references to be so broad as to be a genus of applicants claimed invention.” Appellants respectfully submit that when a reference discloses a range from 0.1 to 99.9% for a component level, this disclosure encompasses substantially all of the possible values of that component level. The Advisory Action contrasts percent ranges with particle diameter ranges, contending that a range of “100 mm-0.1 nm” in the latter could constitute a genus. However, this range of particle sizes, although large, does not encompass substantially all possible diameters. Even if it did, it still would not be broader than the cited percentage range. The argument made in the Advisory Action would imply that a disclosed range could define a genus if expressed in absolute terms, but not if expressed as a percentage. Appellants do not believe this argument to be correct, and submit that a broad percent composition disclosure can define a genus.

(b) Regarding whether or not claims 1, 3-8 and 10 are unpatentable over Mattox '274 in view of Mattox '565 in view of Payne, in view of E.P. 1,060,667 ("Kostansek"), in view of U.S. 5,332,430 ("Gerigk"):

This rejection relies on Mattox '274, Mattox '565 and Payne in the same manner as the first rejection. Appellants repeat here in their entirety the arguments provided above in part (a) against these references. The Kostansek reference was relied on only for its disclosure "that the melted active can also contain a solvent, and the Gerigk reference only for its "disclosure that paint systems containing biocides may contain fillers such as kaolin." With regard to Gerigk, Appellants respectfully point out that paint systems typically contain biocides in much lower amounts, usually ppm levels, than the minimum 15% DCOIT recited in Appellants' claims, as shown in the examples of the references. Appellants submit that this rejection too should be withdrawn.

### CONCLUSION

Based on the foregoing, Appellants respectfully submit that the pending claims are currently in condition for allowance. Appellants respectfully request the Board to pass the pending claims to allowance. Enclosed herewith, Appellants have filed a Certificate of Mailing to establish the timely filing of this Appeal Brief. The Commissioner is hereby authorized to charge any additional fee which may be required, or to credit any overpayments to Deposit Account 18-1840.

Respectfully submitted,



Kenneth Crimaldi  
Attorney for Appellants  
Registration No. 40,968

ROHM AND HAAS COMPANY  
100 Independence Mall West  
Philadelphia, PA 19106-2399  
August 24, 2007

(J) Claims Appendix

1. An aqueous composition comprising from 15 to 30% of 4,5-dichloro-2-octyl-3(2H)-isothiazolone, at least one inorganic filler, at least one surfactant and no more than 5% organic solvent; said composition being stable with regard to agglomeration and phase separation for at least three months at room temperature.
3. The composition of claim 1 containing from 18% to 25% of 4,5-dichloro-2-octyl-3(2H)-isothiazolone.
4. The composition of claim 3 in which said at least one inorganic filler comprises titanium dioxide and kaolin in a total amount from 6% to 10%, the composition contains no more than 2% organic solvent, and the composition further comprises at least one thickener and at least 2% of at least one copper salt.
5. The composition of claim 4 in which said at least one organic solvent comprises at least one solvent selected from di-glycol solvents and tri-glycol solvents.
6. A method for producing an aqueous dispersion comprising from 15 to 30% of 4,5-dichloro-2-octyl-3(2H)-isothiazolone, at least one inorganic filler, at least one surfactant and no more than 5% organic solvent; said dispersion being stable with regard to agglomeration and phase separation for at least three months at room temperature; said method comprising combining in water said organic compound, the inorganic filler and the surfactant, at a

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temperature from 0°C to 35°C with agitation to provide a substantially uniform dispersion.

7. The method of claim 6 in which the dispersion contains from 18% to 25% of 4,5-dichloro-2-octyl-3(2H)-isothiazolone, and the temperature is maintained from 2°C to 25°C.

8. The method of claim 7 in which said at least one inorganic filler comprises titanium dioxide and kaolin in a total amount from 6% to 10%, the dispersion contains no more than 2% organic solvent, and in which the dispersion further comprises at least one thickener and at least 2% of at least one copper salt.

10. The method of claim 8 in which the 4,5-dichloro-2-octyl-3(2H)-isothiazolone is melted prior to addition to other ingredients.



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**(K) Evidence Appendix**

No evidence was submitted during prosecution.

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**(L) Related Proceedings Appendix**

There are no related proceedings.